

The opinion in support of the decision being entered today was ***not*** written for publication and is ***not*** binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHRISTOPHER P. BERTELLOTTI,  
COLIN DRUMMOND, MARK HECKLER,  
JOSEPH ROGARI and DON URIG

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Appeal No. 2001-0774  
Application 09/087,521

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ON BRIEF

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Before WARREN, OWENS and MOORE, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

*Decision on Appeal and Opinion*

The record shows that in the final rejection of December 3, 1999 (Paper No. 8), the examiner set forth twelve (12) grounds of rejection which in sum encompassed all of appealed claims 1 through 28, which are all of the claims in the application.<sup>1</sup> Appellants acknowledged *all* of the grounds of rejection in the brief (pages 2-3), identified a dispositive issue in each of the grounds of rejection, and based thereon, submitted four sets of appealed claims based on common dispositive issues (*id.*, pages 4-6). The examiner selected appealed claims 1, 2, 16 and 25 as respectively representative of appellants' four claim groupings, and advanced one ground of rejection on appeal for each group of appealed claims on which to decide this appeal (answer,

pages 2-15). The examiner withdrew the grounds of rejection with respect to appealed claims 14, 18, 19, 24 and 28 (*id.*, page 7), and did not state or acknowledge any of the grounds of rejection set forth in the final rejection with respect to appealed claims 3 through 13, 15, 17, 20 through 23, 26 and 27.

Our review of the record shows that the four grounds of rejection advanced by the examiner present the issues that are dispositive with respect to the grounds of rejection set forth in the final rejection but not advanced in the answer.<sup>2</sup> Thus, based on this record, and in this instance, we determine that the format selected by appellants to argue the issues and the examiner's adoption of that format serves the interests of judicial economy in deciding this appeal, and thus, we will not remand this appeal to the parties for a complete statement of all of the grounds of rejection of record as set forth in the final rejection and a briefing of the issues in each of those grounds of rejection. See 37 CFR §§ 1.192(c)(7), 197(c)(8)(iv) and 1.193 (a)(1) (2000).

We have carefully so considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellants, in the brief and reply brief, and based on our review, find that we cannot sustain any of the four (4) grounds of rejections advance by the examiner on appeal: appealed claim 1 under 35 U.S.C. § 103(a) as being unpatentable over English in view of Heckman et al. (Heckman) and Gibson (answer, page 4); appealed claim 2 under 35 U.S.C. § 103(a) as being unpatentable over English in view of Heckman and Gibson (*id.*, page 6); appealed claim 16 under 35 U.S.C. § 103(a) as being unpatentable over English in view of Heckman, Koch, II (Koch) and Weaver (*id.*, page 8); and appealed claim 25 under 35 U.S.C. § 103(a) as being unpatentable over Koch in view of Heckman and English (*id.*, page 13).

In order to establish a *prima facie* case of obviousness, the examiner must show that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in this art would have led that person to

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<sup>1</sup> See specification, pages 20-30, and the amendments of November 15, 1999 (Paper No. 7).

<sup>2</sup> We note that none of the four grounds of rejection advanced by the examiner involve Borgmann and Mesnard et al. (*see* answer, page 3), a discussion of which is not necessary to consider the issues in these four grounds of rejection.

the claimed invention as a whole, including each and every limitation of the claims, without recourse to the teachings in appellants' disclosure. *See generally, In re Rouffet*, 149 F.3d 1350, 1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998); *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988); *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988) ("The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that [the claimed process] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. [Citations omitted] Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure."); *see also In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) ("The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.").

All of the grounds of rejection of appealed claims 1, 2 and 16 involve English and Heckman. The examiner relies on the acknowledged prior art in English (col. 1, lines 19-33) for a description of a "conventional [electrostatic fluidized bed powder coating] apparatus" (answer, e.g., page 4). In the language of the appealed claims, we find that English discloses at best only a "vacuum pump having a . . . powder inlet communicating with the powder coating area" of the "powder coating structure." On this record, we find that one of ordinary skill in this art could not have reasonably inferred *any* additional apparatus elements of such a "conventional apparatus" from this limited disclosure in English, including the nature of the "vacuum pump" and the apparatus elements associated therewith.<sup>3,4</sup> We note here that contrary to appellants' arguments,

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<sup>3</sup> It is well settled that a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in this art would have reasonably been expected to draw therefrom, *see In re Fritch*, 972 F.2d 1260, 1264-65, 23 USPQ2d 1780, 1782-83 (Fed. Cir. 1992); *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968), presuming skill on the part of this person. *In re Sovish*, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985).

<sup>4</sup> *Cf.* the acknowledged "typical" prior art electrostatic fluidized bed powder coating apparatus at page 3, lines 6-21, of the specification which is described, in the language of the appealed claims,

the two purposes claimed to be served by the “vacuum pump” in appealed claim 1, i.e., powder cloud formation in the fluidized bed and airborne powder transport, are shown to be attributes of a fluidized bed to which a vacuum has been applied in English (e.g., col. 1, lines 19-22 and 30-33).

The examiner further relies on the disclosure of a “recycle hopper” in Heckman, acknowledging that the reference does not show the powder recycle hopper (col. 4, line 67, to col. 5, line 2), and alleging that the reference teaches the collection of powder from that hopper with apparatus elements in a system which preconditions new powder, combines the same with the recycle powder and conveys the combined powders to an electrostatic application station, the details of the electrostatic application system being otherwise unspecified (answer, e.g., pages 5 and 10). The examiner further relies on the apparatus elements including an aspirator used to withdraw powder from the drying fluidized bed apparatus of the preconditioning system to demonstrate the use of certain claim elements (*id.*, pages 5-6). Appellants submit that Heckman teaches a “supply side,” powder reconditioning system and does not teach “a powder accumulator for collecting excess powder from a powder coating structure during a powder coating operation” (brief, page 8).

We agree with appellants because we find that one of ordinary skill in this art would have reasonably inferred from col. 1 of Heckman that the preconditioning of the new powder is for the purpose of supplying the same to an “electrostatic spray nozzle,” which involves the same principal but is not the same application method as applying the powder with an electrostatic fluidized bed, and there is *no* teaching from which one of ordinary skill in this art could have reasonably inferred *any* apparatus elements for transporting powder from an electrostatic spray nozzle application station to a “recycle hopper.” Indeed, Heckman would have taught one of ordinary skill in this art only that “excess powder from the electrostatic application is recovered

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as “a vacuum pump communicating between the powder coating structure,” including the typical elements as claimed and described at page 5, lines 14-18, “and the powder accumulator,” which is a collector including filters that can be internally pulsed to drop the powder into a reclaim hopper, wherein a “powder conveying structure” returns the reclaimed powder from the “powder accumulator” to the “powder coating structure.” The problems alleged for the acknowledged “typical” apparatus include the inability to adjust the vacuum and the “pulsable filter within the collector is rather cumbersome” (*id.*, page 3, line 22, to page 4, line 14).

in a recycle hopper not shown and is recycled to cyclone assembly **55** through duct **54**,” and that the recycled powder is conveyed from the recycle hopper through duct **54** to the inlet of cyclone **55** by communicating through conduit **63** with vacuum tank **51** and suction blower **52**, wherein “[s]uction blower **51** [sic, **52**] discharges into duct **53** which in turn discharges into recycle hopper (not shown) where the powder is recovered for recycle” (col. 4, line 67, to col. 5, line 2, col. 5, lines 23-33, and Heckman **FIG. 2**). Thus, the only vacuum system taught by Heckman *pulls* the recycle powder from the recycle hopper and into the cyclone. *Cf.* Gibson, col. 4, lines 42-46, wherein the powder is *pulled* through the pipe and then *pushed* towards a chute.

We find that the powder preconditioning system of Heckman uses the same vacuum pump to *pull* new powder into a cyclone and then into a drying fluidized bed in chamber **10** from which the preconditioned powder is “withdrawn . . . by aspiration (i.e., venturi action)” through powder outlet duct **45**, as governed by “flow control valve **48** which regulates the withdrawal rates of dry powder,” to tube **49** which “connects to the inlet **47** of cyclone assembly **55**” along with duct **54** from the recycle hopper (col. 4, lines 32-51, col. 5, lines 23-28, and Heckman **FIG. 2**). We find that while the preconditioned new powder was withdrawn from chamber **10** by aspiration through duct **45**, there is no disclosure of any additional air being applied to duct **45** for such purpose in either col. 4 or **FIG. 2** of Heckman. It is further clear from the reference that vacuum tank **51** and suction blower **52** cause “the pressure differential for gas flow and pneumatic transfer of the powder through the system as indicated by the arrows” (col. 5, lines 23-28), one such “arrow” shown in tube **49** in the direction of duct **54** and inlet **47**. Thus, one of ordinary skill in this art would have reasonably inferred that the aspiration or venturi action is caused by the shape of duct **45** and the suction applied vacuum tank **51** and suction blower **52** through tube **49**.

Thus, we find no teaching in Heckman from which one of ordinary skill in this art would have reasonably inferred that apparatus elements of the preconditioning system thereof would serve as apparatus elements for the transport of powder from the “powder coating structure” through a “vacuum pump” to a “powder accumulator” in either the electrostatic spray gun application system of Heckman or the “conventional” electrostatic fluidized bed application system acknowledged in English as the examiner contends (answer, pages 5 and 10). Even if it

could be said that one of ordinary skill in this art would have reasonably used the “vacuum pump” in the preconditioning system of Heckman to *pull* the powder from the electrostatic application station to a recycle hopper and then into the cyclone in the preconditioning system, the same would not have suggested the arrangement of the apparatus elements required by appealed claims 1, 2 and 16 in which the powder is *pulled* from the “powder coating structure” through the inlet of the “vacuum pump” and then *pushed* through the outlet thereof into the “powder accumulator.”

Accordingly, based on this evidence, we agree with appellants (brief, pages 6-17; reply brief) that the combination of the description of the prior art apparatus in English and the teachings of Heckman would not have reasonably suggested the claimed apparatus encompassed by appealed claims 1, 2 and 16 to one of ordinary skill in this art, and thus we reverse all of the grounds of rejection of record in the final rejection with respect to appealed claims 1 through 13, 15 through 17 and 20 through 23.<sup>5</sup>

Turning now to appealed claim 25, the examiner bases the rejection on the combined teachings of Koch, English and Heckman. The examiner finds that Koch (col. 2, lines 29-41, and **FIG. 3**) does not teach that (1) “the dust collector [37] is a cyclone housing,” (2) the “transferred powder is airborne” in conduit **24**, and (3) conveyor elements **39**, **34** and **20** constitute “a conveyor operative” as required by the appealed claim. The examiner states that “[c]yclones are notoriously well known as conventional powder (i.e., dust) collectors,” pointing to cyclone **55** of Heckman as an example. The examiner further contends that the use of vacuum to transport powder in conduit **24** would have been suggested by the use of vacuum in the acknowledged prior art system described in English, and the conveyor elements of the apparatus shown in English **FIG. 1** and described at col. 4 of that reference would have suggested an arrangement of apparatus elements for the claimed “conveyor operative” with respect to the “new powder feeder,” the “powder reclaim feeder” and the “powder coating structure” (answer, pages 24-25).

Appellants do not contest the examiner’s finding that a cyclone would be considered by one of ordinary skill in this art to be a “dust collector,” and thus, we accept the examiner’s

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<sup>5</sup> A discussion of Kock and Weaver is not necessary to our decision with respect to these three grounds of rejection

contention as a matter of fact. *See generally, In re Ahlert*, 424 F.2d 1088, 1091-92, 165 USPQ 418, 420-21 (CCPA 1970). However, appellants do submit that the references fail to teach any conveyor operative within both a new powder feeder and a powder reclaim feeder to transfer powder into the coating structure” (brief, page 19; evidence in original).

We agree with appellants that the examiner has not established some reason to combine the elements shown in the references to arrive at the claimed apparatus (*id.*, pages 18-19) because we fail to find in the description of the prior art apparatus acknowledged by English any inference that vacuum can be used to convey powder through conduit **24** of Kock (*see answer*, pages 14-15 and 20-21), and we fail to find in the examiner’s explanation of the recycle systems used in Kock and of the Eastman apparatus (*id.*, pages 15 and 22) any reason to combine the apparatus elements in such manner as to arrive at the apparatus elements required for the “conveyor” in appealed claim 25. Thus, we reverse the grounds of rejection of appealed claims 25 through 27.

#### *Other Issues*

We suggest that the examiner consider the following upon any further prosecution of the appealed claims subsequent to the termination of this appeal.

We decline to exercise our authority under 37 CFR § 1.196(b) (2002) and enter on the record a new ground or grounds of rejection of at least appealed claim 1 under 35 U.S.C. § 103(a) as being unpatentable over the “typical” prior art electrostatic fluidized bed powder coating apparatus acknowledged as prior art by appellants in the specification<sup>6</sup> (pages 3-4; *see above* note 4) combined with Heckman to show that one of ordinary skill in the art would have recognized that powder can be collected via a cyclone instead of a pulsable filter, and Gibson to

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<sup>6</sup> *Cf. In re Nomiya*, 509 F.2d 566, 570-71, 571 n.5, 184 USPQ 607, 611, 611 n.4 (CCPA 1975) (“We see no reason why appellants’ representations in their application should not be accepted at face value as admissions that Figs. 1 and 2 may be considered “prior art” for any purpose, including use as evidence of obviousness under § 103. [Citations omitted.] By filing an application containing Figs. 1 and 2, labeled prior art, ipsissimis verbis, and statements explanatory thereof, appellants have conceded what is to be considered as prior art in determining obviousness of their improvement.”).

show the use of high pressure air to form a suction with a venturi device as the vacuum pump,<sup>7</sup> because it is not apparent to us that these references are the only applicable prior art which should be considered in this respect, particularly with respect to other appealed claims.

Accordingly, we leave it to the examiner to apply the acknowledged prior art combined with any other applicable prior art developed by him or her, with or without Heckman and/or Gibson, to the appealed claims.

The examiner's decision is reversed.

*Reversed*

CHARLES F. WARREN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
TERRY J. OWENS	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
JAMES T. MOORE	)	
Administrative Patent Judge	)	

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<sup>7</sup> Cf. *In re Fout*, 675 F.2d 297, 299-301, 213 USPQ 532, 535-36 (CCPA 1982); *In re Siebentritt*, 372 F.2d 566, 567-68, 152 USPQ 618, 619 (CCPA 1967) (express suggestion not necessary to interchange *equivalent* means); *Ex parte Novak*, 16 USPQ2d 2041 (Bd. Pat. App. & Int. 1989), *aff'd. mem.*, 16 USPQ2d 2043 (Fed. Cir. 1990).



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Application 09/087,521

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